

Safety planning
information for neighbors
of FPL's
Turkey Point
Nuclear Power Plant

*Si desea obtener este folleto en español,
vea la informacion en la primera página*



FPL

P.O. Box 029100
Miami, Florida 33102

**Important
Emergency
Safety
Information
Please Save**

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Florida Power &
Light Company

2004

**(2004 Edition)**

This booklet was prepared by Florida Power & Light Company in cooperation with the Miami-Dade Office of Emergency Management, Monroe County Emergency Management and the State of Florida Department of Community Affairs, Division of Emergency Management.

For additional copies, write or phone:

Miami-Dade County Office of Emergency Management
9300 N.W. 41 Street
Miami, FL 33178-2414
Telephone (305) 468-5400
www.co.miami-dade.fl.us/oem/
or e-mail to eoc@miamidade.gov

Aviso: Usted puede recibir gratis un resumen en español de la información de emergencia contenida en este folleto. Para recibir una copia, llene la tarjeta de solicitud en español aquí adjunta, y envíela por correo. El franqueo ha sido pagado.

Notice: Miami-Dade provides equal access and equal opportunity, and does not discriminate in its programs or services. This document is available in alternate format by calling (305) 513-7700, or TDD (305) 468-5402



Monroe County Emergency Management
490 63rd St. Ocean, Suite 150,
Marathon, FL 33050
Telephone (305) 289-6018
www.co.monroe.fl.us

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Emergency information “at a glance” back flap

Please keep this information booklet and discard the previous copy.

How safe is Turkey Point Nuclear Power Plant?

Safety is FPL's top priority in operating the Turkey Point Nuclear Power Plant. Extra care and time are taken to ensure safety regulations are met and even exceeded.

Nuclear energy production is monitored closely by the Nuclear Regulatory Commission, a federal government agency. Daily inspections are conducted on-site at Turkey Point to guarantee compliance with federal regulations on public health, safety and the environment.

Safe, reliable service is maintained through a variety of backup safety measures. Several identical safety systems are in place so

Multiple barriers for safety:

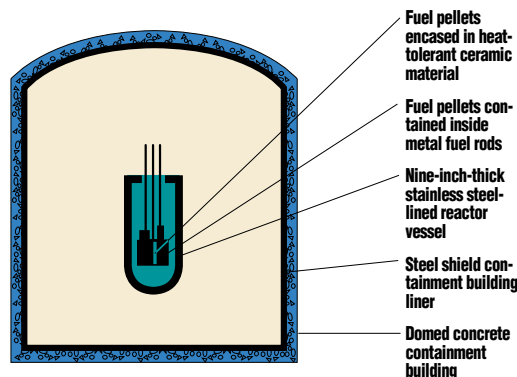
The Turkey Point Nuclear Power Plant is constructed with multiple safety barriers that keep radioactive materials in control and out of the environment. (For further information on how Turkey Point Nuclear Power Plant operates, see page 11.) The uranium fuel is encased in half-inch long, cylindrical ceramic pellets. These pellets are stacked end-to-end inside sealed metal tubes that are resistant to corrosion, radiation and heat. These fuel tubes are part of a fuel assembly which is immersed in water in the reactor core. The core is inside a steel pressure vessel nine-inches thick.

All this is shielded inside a containment building made of concrete more than three-feet thick, laced with steel rods and lined with steel walls.

Containment buildings are capable of withstanding severe external forces such as hurricanes, tornadoes and earthquakes — even a direct hit by a jet aircraft.

Safety is further enhanced by the fact that nuclear reactors cannot explode like an atomic bomb. The concentration of uranium fuel used at Turkey Point Nuclear Power Plant is simply too low to produce a nuclear explosion.

Multiple barriers for safety



Why is there an emergency plan?

Planning is an important part of FPL's strategy to protect you and your family in the unlikely event of an emergency at Turkey Point Nuclear Power Plant.

State and local officials, together with FPL, have prepared a detailed emergency plan for people who live, work, visit or go to school within 10 miles of the plant. The plan is tested by evaluated exercises and inspections.

Save this booklet and share it with family members. It is your guide to the plan and its safety features. Please read it carefully and study the map at the back. Make sure you and your family know what to do in an emergency.

Classifications of nuclear plant events

The four terms below are used to describe events at nuclear power plants. Only two may involve public actions such as staying inside your home, leaving the affected area or going to a specified shelter. FPL notifies county, state and federal authorities in each of the following situations. **You should know these terms:**

An **Unusual Event** is a minor incident such as severe weather. Because of strict regulations, a number of events must be classified and reported as "unusual events" even though they pose no threat or danger to you. *No public action is required.*

An **Alert** is a minor incident, that affects or could potentially affect reactor safety. There is the possibility of a small, limited release of radioactive material, but there would be no danger to you. *No public action is required.*

A **Site Area Emergency** is a more serious incident such as: a major leak from the reactor coolant system; a fire in a safety system, or an incident in which radioactive releases are possible or are occurring. Sirens would sound, alerting you to tune to local radio or television stations (*see page 5*) for official information.

A **General Emergency** is the most severe emergency classification. Radioactive releases that could affect the off-site population are possible or are occurring. Sirens would sound, alerting you to tune to one of the local radio or television stations (*see page 5*) for official information.

After notifying the county, state and federal authorities, FPL officials would continue to resolve the problem at the plant. State and county authorities are responsible for notifying area residents and taking steps to ensure public protection.

What is an emergency planning zone?

Federal authorities established two emergency planning zones- a 10-mile zone, and a 50-mile zone, as the basis for planning to protect the public.

Through preplanned protection actions, residents living within 10 miles of the plant will be protected from direct exposure to radiation in the unlikely event of an accident. People living within 50 miles will be protected from eating contaminated foods, or drinking contaminated milk and water.

If there was an accident at the Turkey Point Nuclear Power Plant, it's not likely everyone within 10 miles would be affected. The area of concern would depend on weather conditions, such as wind speed and direction, and the severity of the accident.

How you would be notified of an emergency

In the event of a serious emergency, emergency management, law enforcement and fire and rescue officials may use a variety of methods to notify people living within 10 miles of the plant:

- Sirens
- Emergency Alert System (Radio/TV/NOAA Weather Radio)

- Door-to-door notification
- Public safety vehicle public address (PA) systems
- Marine interests via Marine VHF-CH 16

If you hear an outdoor warning siren:

In an emergency, outdoor warning sirens within the 10-mile area around the Turkey Point Nuclear Power Plant would sound for intervals of at least **15 minutes each. When you hear a siren, tune to one of the local radio stations (Emergency Alert System) listed on page 5 for further instructions.**

If you do not have a radio or television, call the **Answer Center at (305) 468-5900, TDD: (305) 468-5402.** Through these broadcasts, emergency management officials will provide instructions on what you are to do. Remember, hearing a siren does not necessarily mean evacuate.

Information will also be available on the Office of Emergency Management's Website located at <http://www.co.miami-dade.fl.us/oem>.

MIAMI-DADE COUNTY

AM RADIO/ENGLISH

WIOD-610*
WINZ-940

AM RADIO/SPANISH

WQBA-1140*
WAQI-710

TELEVISION**

- English WFOR-CH 4
 WTVJ-CH 6
 WSVN-CH 7
 WPLG-CH 10
- Spanish WLTU-CH 23
 WSCV-CH 51

** Primary Emergency Alert System.
**Consult your area cable listing for the position of these channels.*

MONROE COUNTY

All radio stations are Emergency Alert Stations.

AM RADIO/ENGLISH

WFFG-1300 WAWF-1500

FM RADIO/ENGLISH

WEOU-92.5 WPIK-102.5
WKRY-93.5 WFKZ-103.1
WGMX-94.3 WWUS-104.7
WKEZ-96.9 WAVK-105.5
WCTH-100.3 WIIS-107.1
WKLG-102.1

FM RADIO/SPANISH

WRAU-106.3

TELEVISION

- Local cable CH 5/CH16

If possible, alert your neighbors by means other than a telephone to ensure that they have received the emergency information and instructions.

Periodic siren tests are conducted by Miami-Dade County

emergency management officials on the first Friday of March, June, September and December. During these tests, an introduction is made, then the sirens will sound, followed by a voice stating that this is a test. Verbal announcements will be made in both English and Spanish. FPL conducts quarterly maintenance testing on the sirens, involving a short voice message followed by a fog horn sound.

Occasionally, a siren may accidentally sound due to lightning strikes or other problems. If you hear a siren and have a question, call your local county emergency management office or police department listed below.

Telephone numbers*

State and county officials are responsible for public notification and will provide timely and accurate information. If you have questions at any time, call:

Miami-Dade County Emergency Management . . (305) 468-5400
Miami-Dade Answer Center (305) 468-5900

TDD/TTY . . . (305) 468-5402

Miami-Dade Police Department (305) 4 POLICE (476-5423)

Monroe County Emergency Management . . (305) 289-6018

Monroe County Sheriff's Office (305) 853-3211 (24-hrs) or Ocean Reef Department of Public Safety (24-hrs) (305) 367-2222.

***Ten-digit dialing required for Miami-Dade**

or your protection

State and local governments have established strict guidelines to ensure your safety in the unlikely event of an emergency at the Turkey Point Nuclear Power Plant. Emergency officials will provide timely, accurate information and instructions. Please follow official instructions.

If you are told to stay indoors (in place sheltering):

- Remain indoors until further notice.
- Close all doors and windows.
- Turn off all window fans. Unless instructed otherwise, leave air conditioning on with air exchange vents closed if possible.
- Stay tuned to a local radio or television station (*see page 5*) for official information.

If you are told to evacuate, take this booklet:

- Listen to a local radio or television station (*see page 5*). Emergency officials will tell you what to do.
- Follow all evacuation directions. Remain calm.
- Lock all doors and windows.
- Turn off appliances (except refrigerator) and faucets.
- Leave pets inside your home with plenty of food and water. DO NOT take pets to a reception center or shelter.

In addition to this booklet, take the following items with you:

- Clothes for a few days.
- Medicine or prescriptions you may need.
- Toiletries (bar of soap, tooth brush, toothpaste, shaving articles, eye care and sanitary items).
- Money (cash, credit cards) and important documents, including mortgage, lease and all insurance information.
- Baby needs (formula, diapers, favorite toys).
- Portable radio and batteries.
- Sleeping bag or two blankets and a pillow for each person.
- Folding cot or lawn chair.
- Proof of occupancy such as a utility bill and photo identification.
- Food and water: Any special dietary foods, non-perishable food and bottled water.

EMERGENCY RECEPTION CENTERS:

Emergency Reception Centers have been developed to register evacuees and direct them to emergency shelters. They will also act as family reunification areas.

The Florida Department of Health considers evacuation as an effective protective measure. If conditions warrant, the health department will make potassium iodide tablets available at the reception centers. For more information about potassium iodide, contact your county health department. Miami-Dade: 305-324-2413 Monroe: 305-853-1900

Miami-Dade County

The Miami-Dade County Emergency Reception Center is located at Tamiami Park, SW 107th Ave., between SW 8th Street and Coral Way (24th Street). To get to this reception center, take the Florida Turnpike Extension to the SW 40th Street (Bird Road) exit or Tamiami Trail exit (SW 8th Street). Follow the

information signs. Law enforcement officers will direct you to Tamiami Park.

Monroe County

Monroe County Emergency Reception Center and Shelter is located at the Key Largo School, 104801 Overseas Hwy, Key Largo (mm104, US 1). Law enforcement officers will assist and direct you.

If you have special needs and require assistance:

To receive special assistance in an emergency please fill out and mail the attached postcard corresponding to your resident county as soon as possible. Only those who meet one or more of the following criteria will be eligible to receive special assistance.

- Electricity dependent
- On life-support system
- Require daily medical assistance / or assistance with activities of daily living (including wheelchair transport vehicle or ambulance)

In Miami-Dade County call (305) 513-7700, TDD (305) 468-5402

If your children are in school:

The following schools are located within the 10-mile emergency planning zone for the Turkey Point Nuclear Power Plant.

If your child attends private school or if your child's school is in the 10-mile EPZ and is not listed below, check with the school to verify its emergency plan.

MIAMI-DADE PUBLIC SCHOOLS

If your children attend these schools, **please do not try to pick them up**. Each school has a designated host school outside the EPZ for use in case of evacuation. Parents are advised of the designated host school at the start of each school year. The schools will follow their own evacuation procedures. As a precaution, the evacuation of schools will occur prior to any general public action.

- Air Base Elementary
- Avocado Elementary
- Bel-Aire Elementary
- Campbell Drive Elementary
- Campbell Drive Middle
- Caribbean Elementary
- Centennial Middle
- Chapman Elementary
- Cooper, N.K. (Title 1)
- Corporate Academy South
- Cutler Ridge Elementary
- Cutler Ridge Middle

- Florida City Elementary
- Gulfstream Elementary
- Homestead Middle
- Homestead Senior
- Leisure City Elementary
- Mays Middle
- Migrant Office
- Naranja Elementary
- Peskoe, Irving and Beatrice Elementary
- Pine Villa Elementary
- Redland Elementary
- Redland Center
- Redland Middle
- Redondo Elementary
- Region VI Office
- Saunders, Laura C. Elementary
- South Dade Adult Center
- South Dade Center
- South Dade Senior
- South Dade Skills Center
- West Homestead Elementary
- Whigham Elementary
- Whispering Pines Elementary

MONROE

There are no Monroe County public schools in the 10-mile emergency planning zone.

If your child attends private school or a day care facility within the 10-mile EPZ, check with that facility to verify its emergency plan.

If you have livestock:

- Place the animals in an enclosed shelter if possible. Provide for adequate ventilation to prevent overheating and suffocation.
- Leave water and food for several days (if you are told to evacuate).
- Use stored feed when possible.
- Tune to a local radio or television station for additional instructions and information (*see page 5*).

If you grow food products:

- Do not eat or sell products until further instructions are issued by agricultural officials.
- Tune to a local radio or television station (*see page 5*) for additional instructions and information.

For more information, contact your local agricultural extension agent and ask for the "Agriculture and Nuclear Power in Florida" brochure.

If you have family in a nursing home, hospital, or assisted living facility:

- These facilities will follow their emergency management plans which include evacuation procedures.
- Check with the facility in advance to verify its evacuation plan.

If you require transportation assistance:

Public transportation will be provided by Miami-Dade Transit (MDT). Page 10 lists the locations where MDT buses will pick up and transport residents to emergency reception centers and shelters.

Miami-Dade emergency bus pick up locations

SOUTH MIAMI-DADE

(Cutler Ridge, Goulds, Naranja, Princeton, Leisure City)

- East Ridge Retirement Village 19301 SW 87 Avenue
- Mays Middle School SW 216 Street + 115 Avenue
- Naranja Elementary 13990 SW 264 Street
- HUD-Pine Island I 272 Street + SW 126 Avenue
- Royal Colonial Trailer Park 14850 SW 280 Street
- Wayside Old Dixie Hwy + SW 290 Street

HOMESTEAD/FLORIDA CITY

(South to County Line)

- P.A.L. Gym 600 SW 14 Avenue
- Senior Citizen Gym 43 NE 16 Street
- YMCA Harris Field 1034 NE 8 Street
- Four Seasons Mobile Home Park 220 NE 12 Avenue
- Laura Saunders Elementary 505 SW 8 Street
- FL City, City Hall 404 West Palm Drive
- Andrew Center 19200 SW 380 Street
- South Dade Camp 13600 SW 321 Street

If you have special transportation needs and require assistance, call the **Miami-Dade Office of Emergency Management** right away **(305) 513-7700, TDD: (305) 468-5402** to arrange for transportation.

Monroe County residents in need of transportation assistance should call **Ocean Reef Public Safety Department Emergency Operations Center** at **(305) 367-2222**.

How Turkey Point Nuclear Power Plant works

Turkey Point Nuclear Power Plant is similar to fossil-fired electric generating plants

because it uses steam to generate electricity. But instead of burning oil or coal in a boiler, Turkey Point Nuclear Power Plant uses uranium fuel inside a nuclear reactor to generate steam.

Here's how it works:

Uranium atoms are split apart in a process called nuclear fission. As more and more atoms split inside the reactor, a large amount of heat is produced. This heat is absorbed by the first of three separate water systems in the plant called the primary system. The radioactive fuel is contained in the fuel assembly and does not come in contact with this water system.

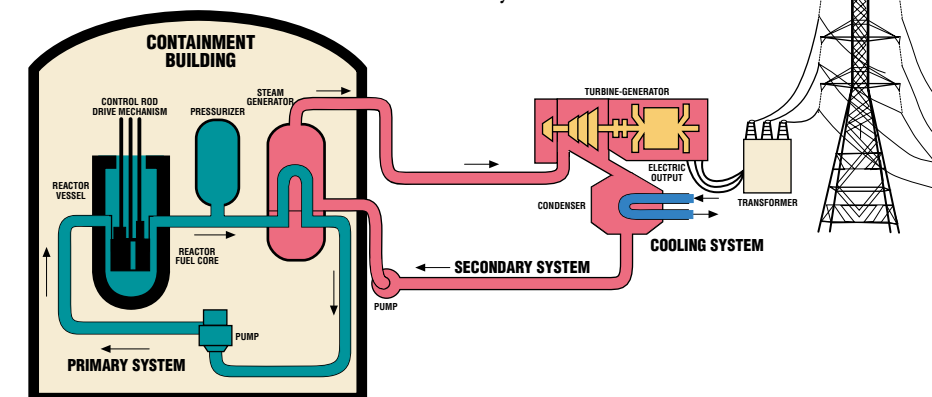
The primary water system is kept under pressure so that it does not boil. It passes through thousands of tubes in the plant's steam generator where the heat is transferred

through the tube walls to another water system called the secondary system.

The heat turns water in the secondary system to steam. The steam pushes against the blades of a turbine, causing it to spin.

The turbine turns a generator on the same shaft to produce electricity.

As the steam leaves the turbine, it passes over hundreds of pipes carrying a third water system: the cooling system. Cooling water from a series of special canals condenses the steam back to water for reuse in the steam generator. Water from each system is physically separated from water in the other systems.



**How
Turkey
Point
Nuclear
Power
Plant
works**

Radiation: A part of every- day life

Radiation is energy that is given off as a particle or wave. It is everywhere and can be both natural or man-made.

Radioactive elements are scattered in small amounts throughout our environment. About 82% of the radiation to which the average person is exposed annually in the United States comes from natural sources: our food, water, soil — even our homes. Additional radiation comes from exposure to man-made sources such as dental and medical X-rays, color televisions, computer monitors and smoke detectors. Less than *one percent* of radiation to which people are exposed comes from nuclear power plants.

Measuring radiation

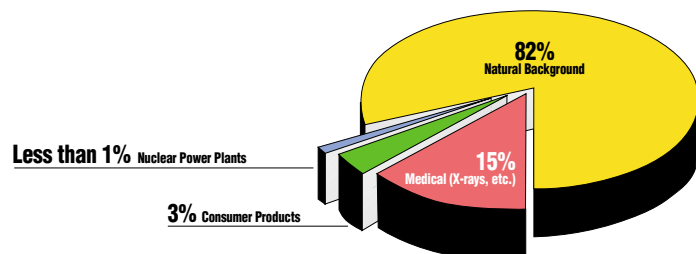
Radiation is measured in units called rem and millirem (one rem equals 1,000 millirem). Most people routinely receive an average of 360 millirem of radiation a year from all sources. A coast-to-coast jet trip results in about five millirem of radiation exposure. Living and working one mile from a nuclear power plant - 24-hours a day for an entire year — results in less than one-half of one millirem of exposure.

How is radiation monitored at Turkey Point Nuclear Power Plant?

Monitoring is done by FPL and the Florida Department of Health. Numerous measuring devices have been placed in and around the Turkey Point Nuclear Power Plant to monitor radiation levels. These instruments can detect minute amounts of natural background radiation levels.

If there were any increase in those radiation amounts, this constant monitoring would alert plant operators, who in turn, would notify state and county officials.

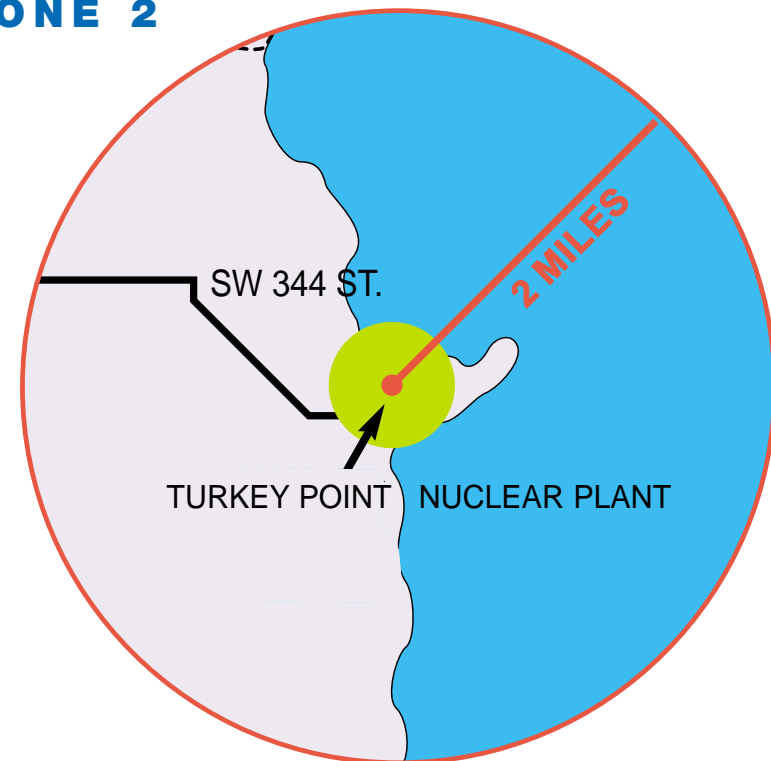
■ Natural Background (Soil, sunlight, etc.)	82%
■ Medical (X-rays, etc.)	15%
■ Consumer Products (T.V., smoke detectors, etc.)	3%
■ Nuclear Power Plants	Less than 1%



Emergency Planning Zones

ZONE 1 IS THE TURKEY POINT NUCLEAR PLANT SITE

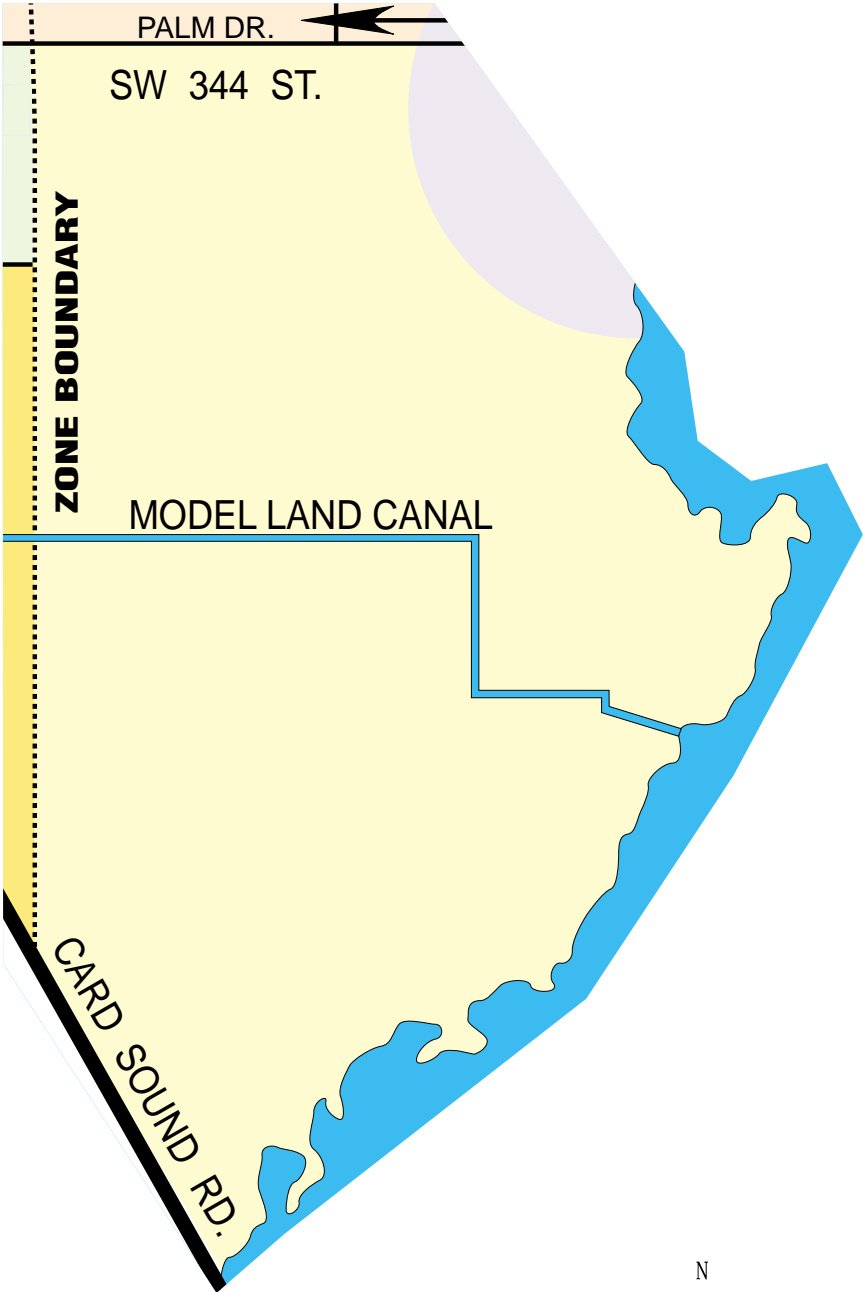
ZONE 2



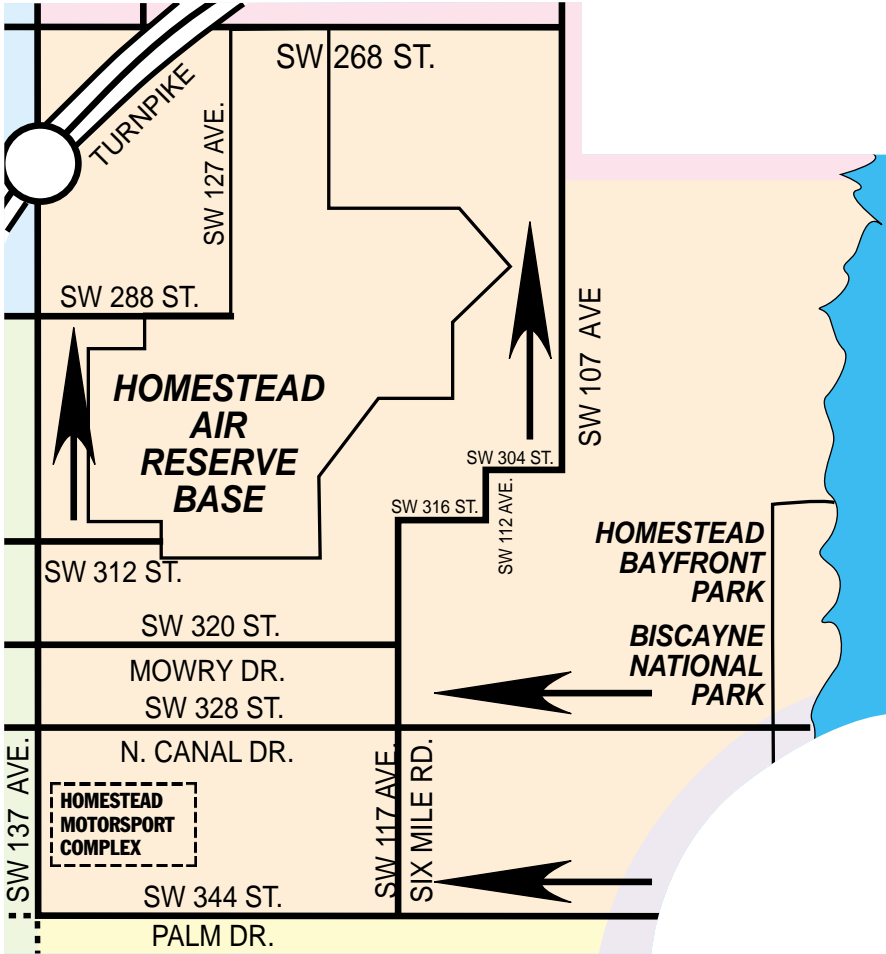
Sources of radiation

Source:
National
Council on
Radiation
Protection
Measurements

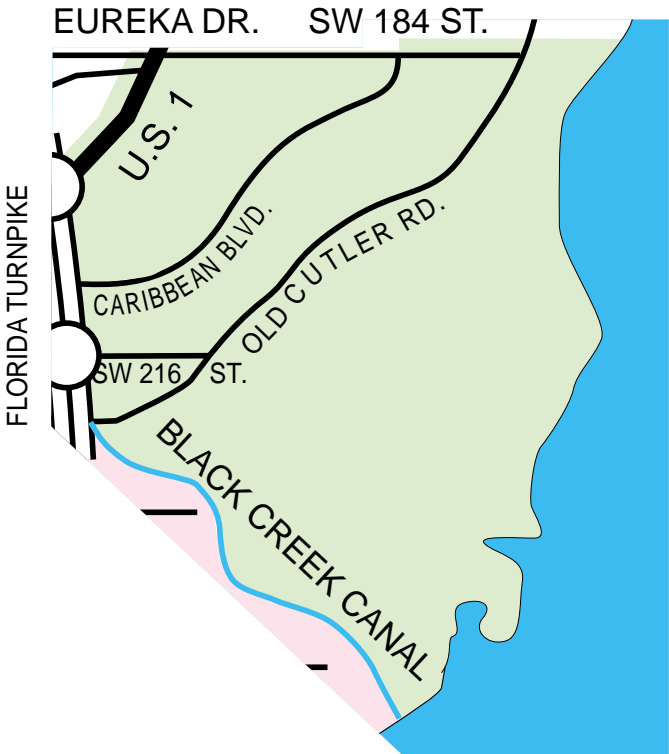
ZONE 3



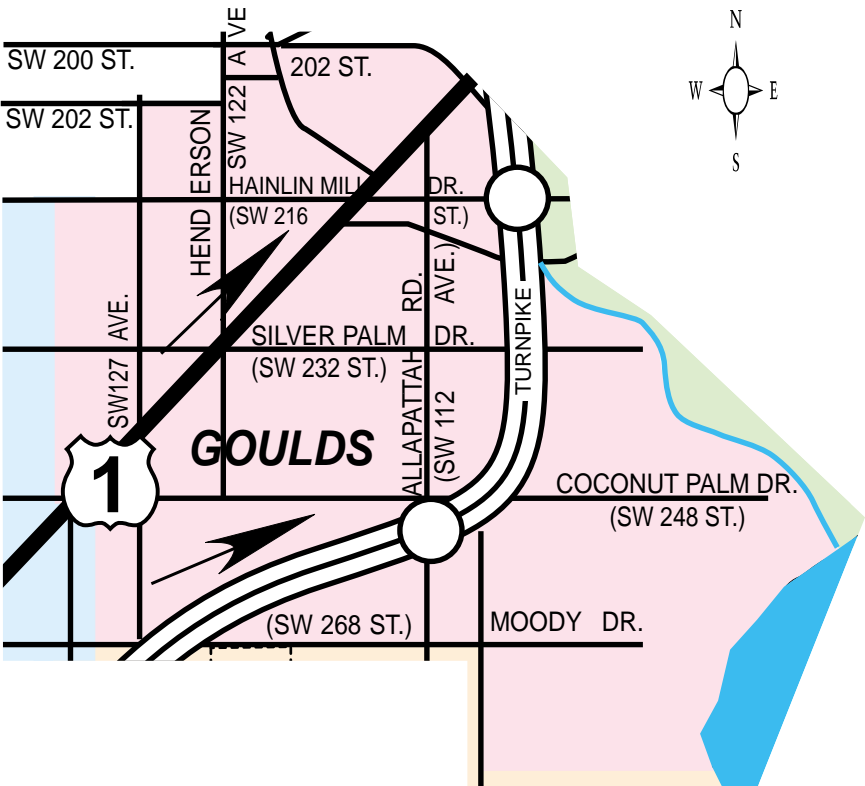
ZONE 4



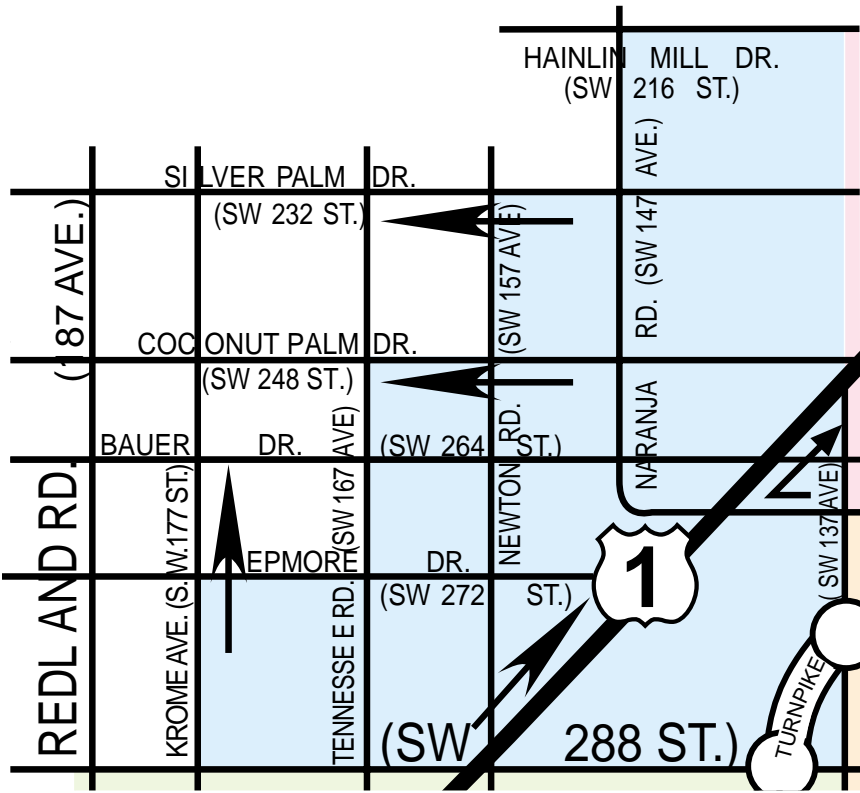
ZONE 5



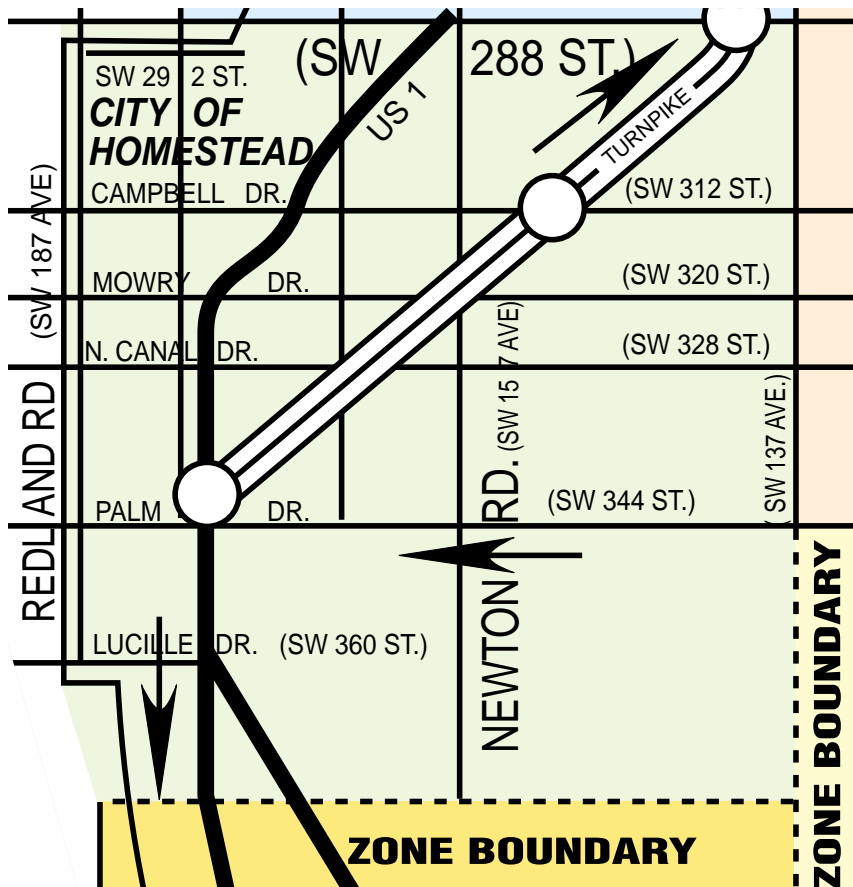
ZONE 6



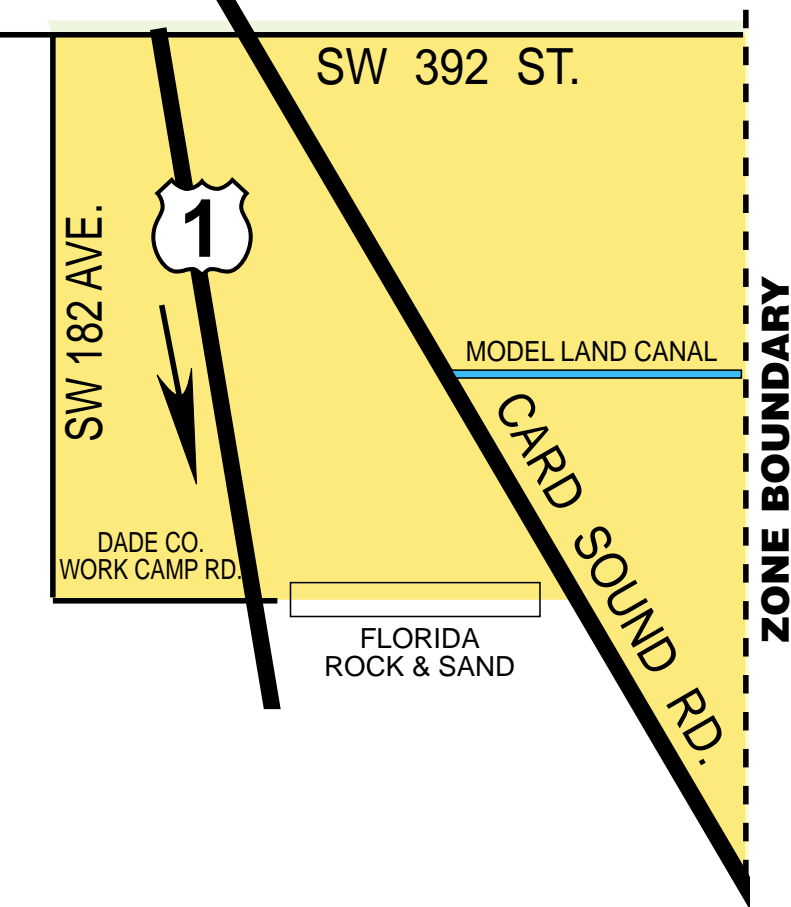
ZONE 7



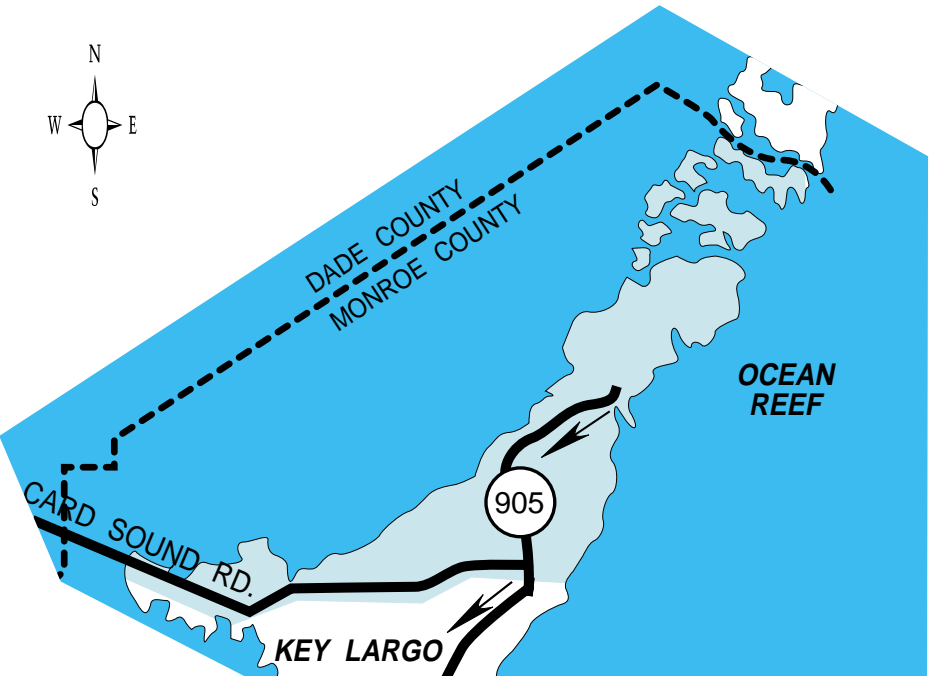
ZONE 8



ZONE 9



ZONE 10



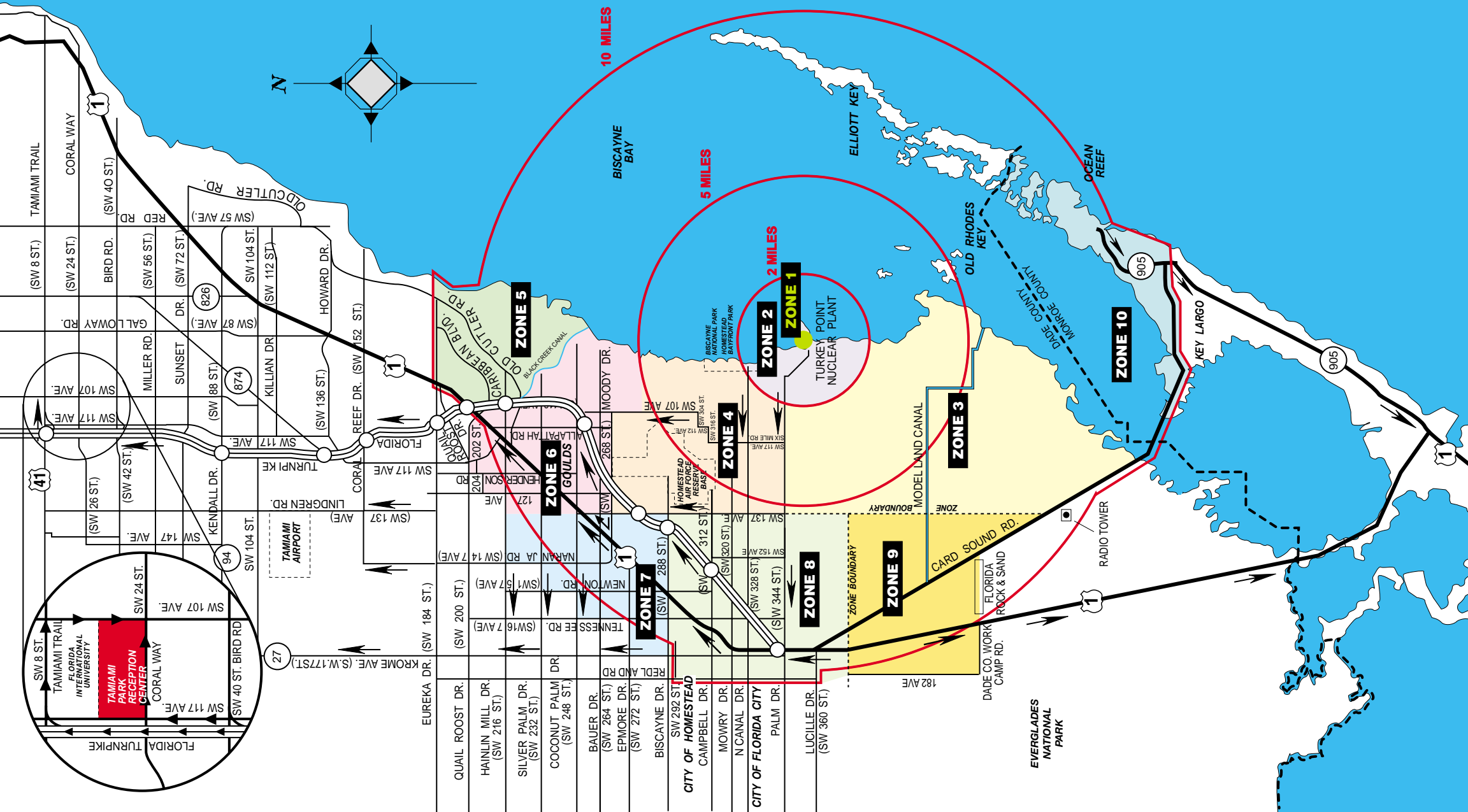
EVACUATION ROUTES

■ This map shows the area within 10 miles of the Turkey Point Nuclear Power Plant and suggested evacuation routes, along with additional roads to be used as landmarks.

■ Locate the areas where you live and work, and determine the most convenient evacuation route from your residence and place of business. Monroe County residents evacuate south.

■ For quick reference, once you have determined your evacuation route, write the information on the detachable card at the back of this booklet.

■ Please check zone enlargements on previous pages for the zone in which you live.



FOR QUICK REFERENCE

Sirens - In an emergency, outdoor warning sirens within the 10-mile area of the Turkey Point Nuclear Power Plant would sound for intervals of at least **15 minutes each. When you hear a siren, tune to local radio or television stations (Emergency Alert System) listed below for further instructions.** Through these broadcasts, emergency management officials will provide instructions on what you are to do. Remember, hearing a siren does not necessarily mean evacuation is necessary.

Evacuation assistance - If you have special emergency needs (due to physical or mental impairment, elderly and homebound, or do not drive), fill out the business reply card inside this booklet for the appropriate county in which you live, and mail it immediately. Special arrangements will then be made for your care in the unlikely event of an emergency.

Children in school - If your children attend public schools within the 10-mile emergency planning zone for the Turkey Point Nuclear Power Plant, **please do not try to pick them up.** The schools will follow their own evacuation procedures. As a precaution, the evacuation of public schools will occur prior to any general public action.

If your child attends private school or a day care facility within the 10-mile EPZ, check with that facility to verify its emergency plan.

EMERGENCY NUMBERS*

***Ten-digit dialing required in Miami-Dade**

- **Miami-Dade County Office of Emergency Management-(305) 468-5400 (TDD/TTY-(305) 468-5402**
- **Miami-Dade Answer Center-(305) 468-5900 (TDD-(305) 468-5402**
- **Miami-Dade Police Department - (305) 4-POLICE (476-5423)**
- **Monroe County Emergency Management-(305) 289-6018**
- **Monroe County Sheriff's Office - (305) 853-3211 or Ocean Reef Department of Public Safety (24-hours)-(305) 367-2222**

MIAMI-DADE COUNTY

AM RADIO

WIOD 610* WFOR-CH 4 WPLG-CH 10
WINZ 940 WTVJ-CH 6 WLTV-CH 23
WAQI 710(Spanish) WSVN-CH 7 WSCV-CH 51
WQBA 1140* (Spanish)

*Primary Emergency Alert System station.
**Please consult your area cable listing for the position of these channels.

TELEVISION**

MONROE COUNTY

All radio stations are Emergency Alert System stations.

AM RADIO	FM RADIO	
WFFG-1300	WEOW-92.5	WPIK-102.5
WAWF-1500	WKRY-93.5	WFKZ-103.1
FM RADIO SPANISH	WGMX-94.3	WWUS-104.7
	WKEZ-96.9	WAVK-105.5
	WCTH-100.3	WIIS-107.1
	WKLG-102.1	
TELEVISION		
Local cable CH 5, CH 16		

EVACUATION ROUTES

Study the map, and make a note here of your evacuation route from home and work.

If you are told to evacuate, take this booklet with you.

I live in zone _____

Evacuation route: _____

I work in zone _____

Evacuation route: _____

School pick-up point: _____

Shelter supplies packed: (see page 6) _____

Pets and livestock cared for: _____

